

**NEW PROGRAM PROPOSALS:
MSPH AND Ph.D. IN EPIDEMIOLOGY
UNIVERSITY OF LOUISVILLE**

**ACTION
Agenda Item D-1-a
January 24, 2000**

Recommendation:

That the Master of Science in Public Health and the Doctor of Philosophy programs in Epidemiology proposed by the University of Louisville be approved and registered in CIP 51.2203 (Epidemiology).

Rationale:

- The University of Louisville and the University of Kentucky recently completed work on an agreement to create the Kentucky School of Public Health. UofL will focus on training health professionals for careers in research. UK will focus on professional degree programs emphasizing the practice of public health. The proposed programs fit within this division of labor. In the spirit of that agreement, UK has agreed to withdraw its current Master of Science in Public Health degree program and adjust its component parts into a Master of Public Health degree program. When approved, the MPH will be registered in CIP 51.2201 (Public Health-General).
- The proposed programs are designed to produce scientists trained for careers in the analysis of the incidence, distribution, and control of disease. Kentucky currently does not have graduate programs designed for this purpose.
- The proposed programs are important elements of:
 - The mission of UofL to be “a research university that places special emphasis on the research and service needs of Kentucky’s urban areas.”
 - The responsibility of the UofL School of Medicine to meet the educational, research, and patient care needs of Kentucky.
 - The effort by the city of Louisville to strengthen and build its bio-medical sector.
 - The goal of the Kentucky School of Public Health “to foster the development and coordination of high-quality graduate and post-graduate academic teaching, research, and community services programs that address the public health needs of Kentucky.”
- Kentucky’s population continues to be categorized as “high risk” across most measures of its health. The proposed programs will produce researchers crucial to improving the health of this population.
- UofL and the state of Kentucky need to develop a critical mass of clinical researchers in order to secure external funding for research projects. In addition, clinical research is an increasingly important activity at academic health centers across the country.

An executive summary submitted by UofL is attached to this agenda item.

Staff Preparation by Bill Swinford

Executive Summary

Epidemiology: Clinical Investigation Sciences

The proposed program will support the mission of the University of Louisville and its Health Sciences Center; maximize student access to a much needed, cutting-edge program in Epidemiology: Clinical Investigation Sciences; and assist the Commonwealth of Kentucky in addressing the public health needs of its citizens.

I. Mission

One critical aspect of the University's mission is to be "a research university that places special emphasis on the research and service needs of Kentucky's urban areas." Similarly, the Health Sciences Center is committed to supporting a program of basic biomedical and clinical research, and the training of future scientists. The proposed program will enhance the University's research capacity by training health care professionals, including faculty, to conduct clinical research and become more productive clinician scientists.

The public health needs of Kentucky's citizens have been well documented, as has the need for graduate programs in public health. This program in Epidemiology: Clinical Investigation Sciences seeks to address the critical need for highly trained clinician scientists capable of conducting patient-oriented research and of competing successfully for external funding for such research. These clinician scientists are needed to conduct research at the UofL and at other health care organizations. Their research will contribute to improving the health of Kentucky's citizens, many of whom are at advanced risk when compared with the nation. The UofL faculty who graduate from the Epidemiology: Clinical Investigation Sciences program will be more effective and productive clinician scientists. Non-faculty graduates are expected to be actively recruited by the Louisville Medical Center and other institutions across the country.

Without programs such as Epidemiology: Clinical Investigation Sciences, the growing need for highly trained clinician scientists will not be met. The University of Louisville, like other academic health centers, has not been able to produce a sufficient number of clinician scientists with adequate training in clinical research to advance the scientific research that is essential to improving the health of the population and the quality of health care. Through the proposed program, the University will respond to this important need.

The proposed program will help the University achieve two other goals, one set by the Commonwealth and one generated internally. The Kentucky Postsecondary Education Improvement Act of 1997 sets as a goal for 2020 that the U of L become "a premier, nationally-recognized metropolitan university." Also the University's *Challenge for Excellence* states that to achieve the Governor's and the legislature's goal, it must "reach a level of quality and production that satisfies the rigorous Carnegie Foundation criteria for inclusion as a Research I institution." Graduates of this innovative, cutting edge program will contribute greatly to the University's efforts to achieve these goals.

II. Program Description

The doctoral program in Epidemiology: Clinical Investigation Sciences has been designed to meet the needs of students seeking either an MSPH or Ph.D. degree. Students seeking the MSPH degree must have a professional degree (e.g., D.M.D., D.O., M.D. or Ph.D.), a recognized terminal degree in a health field, or a graduate degree with appropriate experience in health care or clinical research. Students seeking to bypass the UofL MSPH program and enter directly into the advanced doctoral course work must already have an MSPH in Clinical Investigation Sciences or comparable training at the Master's level.

The proposed Ph.D. program is a 72-credit hour program with an embedded MSPH program (a 24-credit hour block of core courses in epidemiology, biostatistics, health economics, health services and outcomes research, and bioethics). Students seeking to complete the MSPH would, in addition to the core courses, complete the master's thesis (6 credit hours) to earn the degree. Students seeking to complete the Ph.D. would bypass the thesis and complete an additional 30 hours of course work and 18 hours of dissertation credit. At the doctoral level, students will be able to select from two areas of concentration: Translational Research or Health Services and Outcomes Research.

The 24 hours of foundational courses were designed to facilitate problem-based learning of a core of material in Clinical Investigation Sciences and to integrate biostatistical and epidemiologic material. Team-teaching in these courses will be the norm. Students completing the advanced course work in the doctoral concentration will develop more advanced, specialized skills. The advanced doctoral courses were developed with the 1995 NIH expanded definition of clinical research in mind. Students in the Translational Research concentration will be trained to participate in and direct all phases of the development and testing of new investigational drugs and biomedical devices. Students in the Health Services and Outcomes Research concentration will be trained to conduct research that assesses the effectiveness and efficacy of alternative health service delivery systems or treatment modalities and to design and evaluate Federal and State health programs.

An evaluation plan for the program has been developed. It includes student evaluations of all courses and faculty, exit interviews, graduate and employer surveys, and input from the External and Internal Advisory Committees and the program's Academic Council. The program director will produce an annual report for the Vice President for Health Affairs, the Dean of the Graduate School, the Provost, and the Chairs of the Internal and External Advisory Committees.

III. Supportive Data

There is no other Epidemiology: Clinical Investigation Sciences program in Kentucky. Thus, an important program goal is to make the program accessible throughout the Commonwealth and beyond. A statewide group has been formed to develop plans for inter-institutional collaboration and cooperation. The UofL has taken a leadership role in this group and will seek to develop formal transfer arrangements where possible. The proposed Kentucky School of Public Health, a partnership with UK, will provide opportunities for joint faculty appointments, distance learning and team teaching for the program's faculty.

No data are available on employment opportunities for graduates of the program. However, since almost all of the students in the program will already be employed in health care related fields, they will be seeking to enhance their professional skills rather than secure new positions. Student interest in the program will be strong. Only two other institutions in the country offer doctoral level Epidemiology: Clinical Investigation Sciences programs. Thus, this program should be attractive to students throughout the Commonwealth and beyond. It should also gain national prominence due to its innovative approach to curriculum and its cutting edge advanced course work concentrations. As a short-term solution to the University's need for clinical researchers, a certificate program in Clinical Research, Epidemiology, and Statistics Training (CREST) was initiated in the School of Medicine in June 1999 in response to requests from UofL junior faculty. The students in this certificate program have all expressed support for and interest in seeking the MSPH or Ph.D. degree once the proposed program is approved and initiated.

III. Resources

Adequate space is available to launch the program. The program will be located in the Carmichael Building on the HSC Campus. A classroom and adequate administrative and office space are available. Computer stations with internet access are housed in the classroom designated for the program. Computers are also available at the School of Medicine's computer lab in the Carmichael Building. Library resources are adequate for the program. As the program grows, additional classroom space will be available in the Carmichael Building, when needed.

Fourteen ranked faculty currently employed by the University will launch the program, each contributing between 10% and 50% of his or her time. Over the next five years, six new faculty will be added to teach the advanced doctoral courses, particularly in the Health Services and Outcomes Research concentration. Funds for these new positions, as well as those funds required to operate and develop the program once initiated, will be obtained from tuition, reallocation, and new allocations from the School of Medicine. The reallocated funds will come from the Department of Medicine and the Department of Family and Community Medicine.